

AMENDMENTS TO THE CLAIMS:

Claim 1- 8 (canceled).

Claim 9 (new): A gearshift control system for a hybrid-drive electric vehicle, the vehicle comprises an engine having an output shaft, a transmission for changing and transmitting a rotation of an input shaft to wheels via an output shaft, the transmission having gear positions including a neutral position and selectively applying one of the gear positions according to a gear shift request, a clutch for connecting and disconnecting power transmission between the output shaft of the engine and the input shaft of the transmission, a rotating electric machine connected to the input shaft of the transmission for operating as an electric motor and an electric generator, a storage element for storing an electric power supplied from the rotating electric machine, the system comprising:

determining means for determining whether or not the gear shifting request of the transmission exists;

clutch disconnection means for disconnecting the clutch upon the gear shifting request of the transmission;

neutral position setting means for changing over the gear position of the transmission to the neutral position when the clutch has been disconnected;

mode selecting means for selectively operating the rotating electric generator in a motor mode and in a power generating mode so that a rotational speed of the input shaft of the transmission reaches a region of a synchronizing rotational speed depending on a requested gear position; and

gear setting means for setting the gear position of the transmission from the neutral position to the requested gear position.

Claim 10 (new): The gearshift control system according to claim 9, wherein:

the mode selecting means is configured to operate the rotating electric machine in the motor mode or in the power generating mode in accordance with a charging state of the storage element.

Claim 11 (new): The gearshift control system according to claim 9, wherein:

the mode selecting means is configured to calculate the region of the synchronizing rotational speed of the input shaft of the transmission based upon a rotational speed of the output shaft of the transmission and a gear ratio of the transmission after gear shifting, and maintain the motor mode or power generating mode currently applied until the rotating speed of the input shaft of the transmission reaches the region of the synchronizing rotational speed.

Claim 12 (new): The gear shift control system according to claim 9, wherein:

the mode selecting means is configured to operate the rotating electric machine in the power generating mode in order to decrease the rotational speed of the input shaft.

Claim 13 (new): The gearshift control system according to claim 9, wherein:

the mode selecting means is configured to operate the rotating electric machine in the motor mode in order to increase the rotational speed of the input shaft.

Claim 14 (new): The gearshift control system according to claim 9, wherein:

the mode selecting means is configured to operate the rotating electric machine in the power generating mode until the rotational speed of the input shaft of the transmission reaches the region of the synchronizing rotational speed in the vicinity of a zero value after the clutch means disconnects the clutch, when the vehicle is stationary and the gear shifting request of the transmission from the neutral position has been determined to exist.

Claim 15 (new): The gearshift control system according to claim 9, wherein:

the clutch disconnection means is configured, when the gear shifting request of the transmission has been determined to exist, to disconnect the clutch and maintain the clutch disconnected until gear setting to the requested gear position completes, if the vehicle is traveling by an output of the engine, and to disconnect the clutch and maintain the clutch disconnected even after gear setting to the requested gear position completes, if the vehicle is traveling by an output of the rotating electric machine.

Claim 16 (new): The gearshift control system according to claim 9, wherein:

the storage element comprises an electric double layer capacitor.

Claim 17 (new): A gearshift control system for a hybrid-drive electric vehicle, the vehicle comprises an engine having an output shaft; a transmission for changing and transmitting a rotation of an input shaft to wheels via an output shaft, the transmission having gear positions

including a neutral position and selectively applying one of the gear positions according to a gear shift request, a clutch for connecting and disconnecting power transmission between the output shaft of the engine and the input shaft of the transmission, a rotating electric machine connected to the input shaft of the transmission for operating as an electric motor and an electric generator, a storage element for storing an electric power supplied from the rotating electric machine, the system comprising:

a programmable controller programmed to:

determine whether or not the gear shifting request of the transmission exists;

disconnect the clutch upon the gear shifting request of the transmission;

change over the gear position of the transmission to the neutral position when the clutch has been disconnected;

selectively operate the rotating electric generator in a motor mode and in a power generating mode so that a rotational speed of the input shaft of the transmission reaches a region of a synchronizing rotational speed depending on a requested gear position; and

set the gear position of the transmission from the neutral position to the requested gear position.

Claim 18 (new): A gearshift control method for a hybrid-drive electric vehicle, the vehicle comprises an engine having an output shaft; a transmission for changing and transmitting a rotation of an input shaft to wheels via an output shaft, the transmission having gear positions including a neutral position and selectively applying one of the gear positions according to a gear shift request, a clutch for connecting and disconnecting power transmission between the

output shaft of the engine and the input shaft of the transmission, a rotating electric machine connected to the input shaft of the transmission for operating as an electric motor and an electric generator, a storage element for storing an electric power supplied from the rotating electric machine, the method comprising:

determining whether or not the gear shifting request of the transmission exists;

disconnecting the clutch upon the gear shifting request of the transmission;

changing over the gear position of the transmission to the neutral position when the clutch has been disconnected;

selectively operating the rotating electric generator in a motor mode and in a power generating mode so that a rotational speed of the input shaft of the transmission reaches a region of a synchronizing rotational speed depending on a requested gear position; and

setting the gear position of the transmission from the neutral position to the requested gear position.